

Considering Probiotics?



Probiotics, Prebiotics, and Synbiotics, Oh my!

Probiotics are not the same as prebiotics—nondigestible substances that stimulate the growth and/or activity of potentially beneficial microorganisms. The term “synbiotics” refers to products that combine probiotics and prebiotics.

You might have noticed “probiotics” listed on the label of your yogurt. Maybe you’ve seen probiotic pills on store shelves next to vitamins or other supplements. But what exactly are probiotics?

Probiotics are live microbes, such as bacteria, similar to those found naturally in the human body. We tend to think of microbes as harmful, but certain kinds are good for us and help the body to function properly.

Probiotics are found in some foods or are taken by mouth as dietary supplements. Probiotics also come in other products, such as creams.

About Probiotics

The concept behind probiotics was introduced in the early 20th century, when Nobel laureate Elie Metchnikoff, known as the “father of probiotics,” proposed in *The Prolongation of Life: Optimistic Studies*

that ingesting microorganisms could have substantial health benefits for humans. Microorganisms are invisible to the naked eye and exist virtually everywhere. Scientists continued to investigate the concept, and the term “probiotics”—meaning “for life”—eventually came into use.

Picturing the human body as a “host” for bacteria and other microorganisms is helpful in understanding probiotics. The body, especially the lower gastrointestinal tract (the gut), contains a complex and diverse community of bacteria. (In the body of a healthy adult, cells of microorganisms are estimated to outnumber human cells by a factor of ten to one.) Although we tend to think of bacteria as harmful “germs,” many bacteria actually help the body function properly. Most probiotics are bacteria similar to the beneficial bacteria found naturally in the human gut.

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Key Points

- ✓ Although some probiotic formulations have shown promise in research, strong scientific evidence to support specific uses of probiotics for most conditions is lacking.
- ✓ Studies suggest that probiotics usually have few side effects. However, the data on safety, particularly long-term safety, are limited, and the risk of serious side effects may be greater in people who have underlying health conditions.
- ✓ If you are considering a probiotic dietary supplement, consult your health care provider first. Do not replace scientifically proven treatments with unproven products or practices.
- ✓ Tell all your healthcare providers about any complementary health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

Various mechanisms may account for the effects of probiotics on human health. Possible mechanisms include altering the intestinal “microecology” (e.g., reducing harmful organisms in the intestine), producing antimicrobial compounds (substances that destroy or suppress the growth of microorganisms), and stimulating the body’s immune response.

Probiotics commonly used in the United States include *Lactobacillus* and *Bifidobacterium*. There are many specific types of bacteria within each of these two broad groups, and health benefits associated with one type may not hold true for others.

Are There Health Benefits?

Some evidence suggests that probiotics may relieve diarrhea, ease irritable bowel syndrome and reduce symptoms of atopic eczema, an itchy skin condition usually seen in infants. Probiotics generally have few side effects, but there’s little data about their long-term safety.

The U.S. Food and Drug Administration hasn’t approved any health claims for probiotics. Although some products have shown promise, there’s little evidence to support specific uses of probiotics for most conditions.

Talk with your healthcare provider before taking probiotics for a health condition. These products contain different types of bacteria, and their effects on the body can vary from person to person. Probiotics might cause serious side effects in people with underlying health conditions.